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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,841	07/11/2003	Rafael Storz	5005.1053	7983

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EXAMINER

NGUYEN, THONG Q

ART UNIT PAPER NUMBER

2872

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/617,841	<b>Applicant(s)</b> STORZ ET AL.	
	<b>Examiner</b> Thong Q. Nguyen	<b>Art Unit</b> 2872	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The present Office action is made in response to the amendment filed on May 09, 2005. It is noted that in the mentioned amendment, applicant has made changes to the specification and the drawings.

### ***Drawings***

2. The drawings contained one sheet of corrected figure 1 was received on May 09, 2005. These drawings are approved by the Examiner.

### ***Specification***

3. The lengthy specification, which was amended by the amendment of May 09, 2005, has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-5, 8-14 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Niwa et al (of record).

Niwa et al discloses an optical system having a microscope with illuminating apparatus and detecting apparatus for detecting fluorescent light from a sample illuminated by the illuminating apparatus. The system as described in columns

5-8 and shown in figures 1-3 comprises a microscope body (101), an illuminating apparatus (102) and a detecting apparatus (103). The illuminating apparatus comprises a laser source for providing light of at least a particular wavelength for activating a sample stained with fluorescence. The fluorescent from the sample is detected by the detecting apparatus (103) having a spectral element (104) for detecting the value of fluorescent light. The scanning of the fluorescent sample is made via a motor-driven stage (107) so that the whole sample is able to scan in two mutually perpendicular directions so that any point on the sample is able to illuminate and being detected. The movement of the X-Y motor-driven stage is as understood made by a line along X-direction and then in a Y-direction for a continuation of scanning in another line. The use of a processing system for receiving and for analyzing the fluorescent value comprises a computer and a displaying so that the spectral data of the fluorescent light is able to reconstruct and display. It is also noted that a comparison of the value of the fluorescent light and the value(s) stored in computer is able to make as can be seen in columns 6-7.

Regarding to the method claims of claims 1-5 and 8-10, it would have been obvious to one skilled in the art to set forth a set of steps including the step of illuminating a sample stained with fluorescent agent by using a laser source, then detecting the fluorescent light from the illuminated spot of the sample at that point via the use of a spectral detector for detecting the value of the fluorescent light; and then moving or scanning the sample via the X-Y motor-driven stage so that

the whole sample is illuminated and detected, and transferring the detected data to a processing system having a computer with memory for storing preset data so that the value of the detected fluorescent light is compared and stored.

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 6-7 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niwa et al in view of Engelhardt (of record).

The microscope system provided by Niwa et al for scanning and detecting fluorescent light from a sample stained with fluorescent agent as described in columns 5-8 and shown in figures 1-3 does not disclose that the detecting apparatus comprises a prism (or grating) spectrometer and a multiband detector. However, the use of a detecting apparatus having two detecting elements is suggested by Niwa et al as can be seen in columns 9-14. Regarding to the use of a multiband detector with prism spectrometer for detecting spectral fluorescent light, it is noted that such a us is known in the art as can be seen in the present specification in page 2 and in the microscope provided by Engelhardt. In particular, Engelhardt discloses a confocal microscope having a detecting system having a prism spectrometer (15) for splitting detected light into a multiple light beams and a multiband detector (25) for receiving the multiple light beams. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the microscope system provided by Niwa et al by utilizing a

detecting apparatus having prism spectrometer and multiband detector as suggested by Engelhardt for the purpose of splitting detecting light into a multiple light beams and a multiband detector for receiving the multiple light beam so that the different wavelengths are able to receive simultaneously and reducing the number of separate detector elements being used.

***Response to Arguments***

8. Applicant's arguments filed on May 09, 2005, pages 6-7 have been fully considered but they are not persuasive.

A) Regarding to the rejection of claims 1-5, 8-14 and 17-19 under 35 USC 102(B) over the art of Niwa et al, applicant's arguments that the art of Niwa et al does not disclose the means (or the step) of determination an amplitude value for each fluorescent dye from spectral data for each scan point and then transfer the amplitude values to a processing module as claimed in present claims 1 and 11. The Examiner respectfully disagreed with the applicant's viewpoint and respectfully invited the applicant to review the art of Niwa et al and the rejection set forth in the previous Office action and now repeated in this Office action.

First, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Second, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which

applicant relies (i.e., the advantage of early upstream data reduction without loss of information in online depiction of the specimen at high scan data volumes,...) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Third, regarding to the applicant's arguments that Niwa et al does not disclose the means (or the step) of determination an amplitude value for each fluorescent dye from spectral data for each scan point and then transfer the amplitude values to a processing module as claimed in present claims 1 and 11. The Examiner respectfully disagrees and respectfully invited the applicant to review the art of Niwa et al in column 8, lines 13-60, in particular, lines 25-44 in which Niwa et al indeed disclose the means or the step of transfer the amplitude values to a processing module. As disclosed by Niwa et al, the detecting signal carried the data of each fluorescent spot of the sample during a scanning process is viewed and determining whether that detecting signal is read by the microcomputer or not. In other words, the detecting data read by the A/D conversion board of the microcomputer is the signal carrying the data having its intensity values greater than a predetermined value. See column 8, lines 18-24. The detecting signal carrying the data with intensity values are transferred to other components of the microcomputer (106) via the A/D conversion board wherein the maximum amplitude value of the resulting data is searched out and read by the mentioned components of the microcomputer. See column 8, lines 25-44. As a result, the

device of Niwa et al indeed comprises means or the step of transferring the amplitude values of the signal carrying fluorescent data to processing components of a microcomputer. Applicant should note that the feature thereof "transferring the amplitude values to a processing module" (recited in claim 1, last line) or "means for transferring the amplitude values to a processing module" (recited in claim 11, last two lines) does not provide or recite any specific structural limitation(s) of the means or the step of transferring the amplitude values to make it distinguish from the means for doing the same function as provided by Niwa et al.

B) Regarding to the rejection of claims 6-7 and 15-16 under 35 USC 103(a) over the art of Niwa et al and Engelhardt, since the applicant has not provided specific arguments and thus the claims are still rejected for the same reasons as set forth in the rejection of the previous Office action and now repeated in this Office action.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



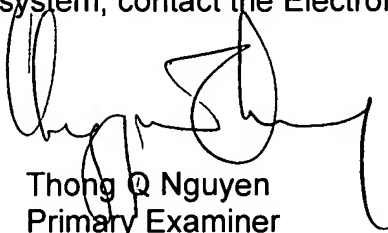
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Nguyen  
Primary Examiner  
Art Unit 2872

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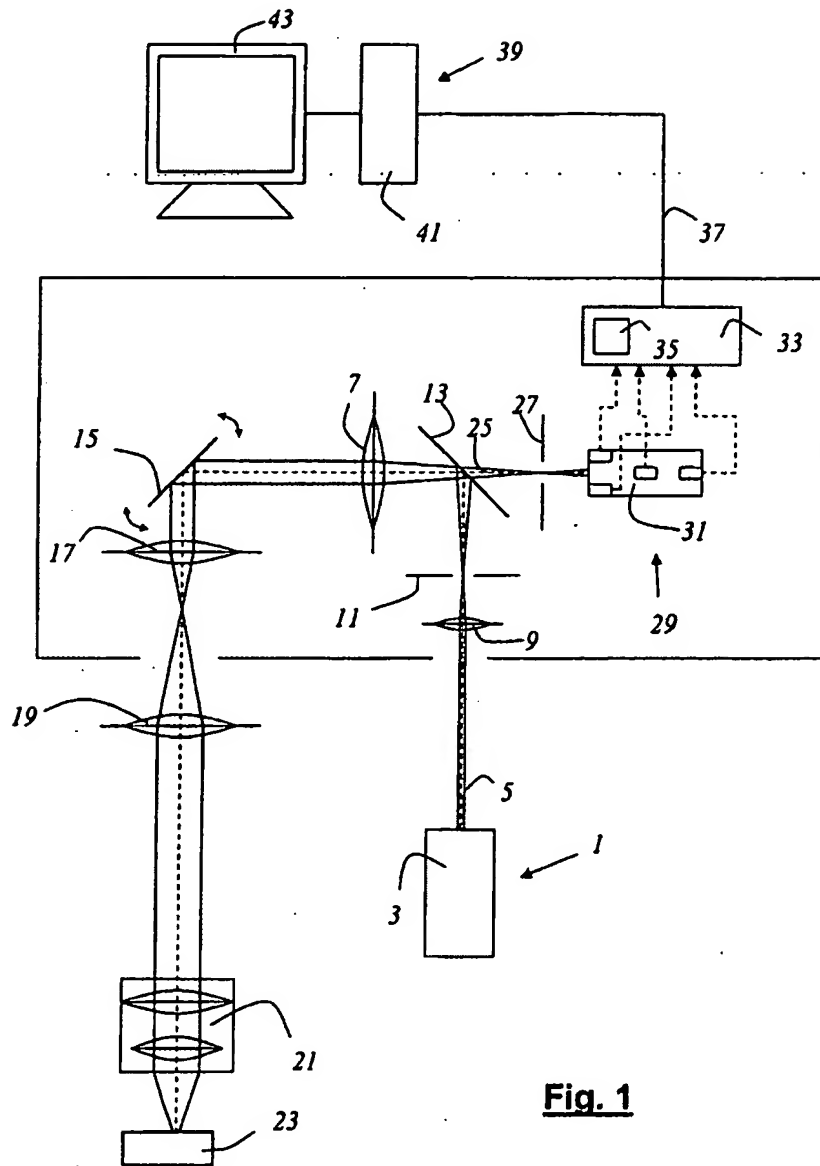


Appl. No. 10/617,841  
 Resp. Dated May 5, 2005  
 Reply to Office Action of January 6, 2005

Atty. Docket No. 5005.1053

# REPLACEMENT SHEET 1/1

Best Available Copy



**Fig. 1**